



STARS

**Standard Accounting and
Reporting System**

February 2002



Presented by

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Systems Program Management

DFAS-CL



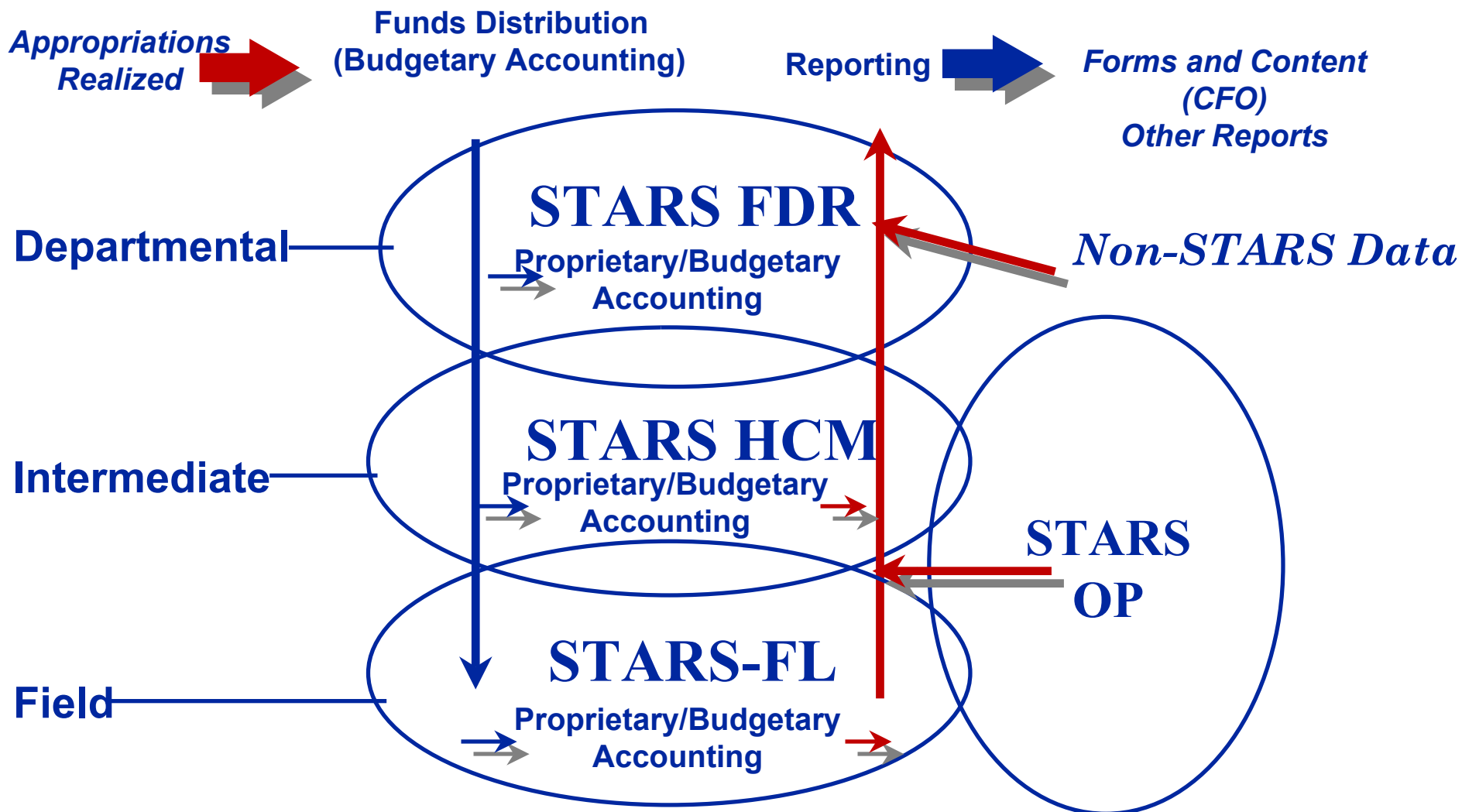
STARS Mission Statement



STARS Mission, as the established migratory General Funds Accounting System for the Navy, is to improve the overall effectiveness of the Navy's Financial Management through the consolidation, standardization and integration of Finance and Accounting procedures, processes, operations, and systems.



Functional Overview





System Description - Subsystems and Customers



- **STARS FDR/MCR (Financial Departmental Reporting/Major Command Reporting)**
 - **Serves Navy and Marine Corps**
 - Generates Departmental CFO and Other Financial Reports
 - Produces Major Command level fiduciary and management reports
- **STARS HCM (Headquarter Claimant Module)**
 - **Serves Navy**
 - Provides Funds Distribution (Major Commands to Field Activities)
 - Major Command Accounting/Reporting
- **STARS-FL (Field Level)**
 - **Serves Navy, DoD Reporting, Schools, Office of White House Communications**
 - Major Command Accounting System (Non Hardware Commands)
 - Field Level Accounting System (All Commands)



System Description - Subsystems and Customers



- **STARS OP (One Pay) (Including 100% Prevalidation)**
 - **Serves Navy, Marine Corps and Army**
 - **Contract and Vendor Commercial Entitlement Subsystems**
 - **Transportation Payments**
 - **Travel Payments**
 - **STARS OP Disbursing Function**



System Description - Customers and Service Suppliers



- **STARS Supports**
 - Navy Fund Holder at Installation and Command Level
 - Field Organization's
 - Navy-Owned AAA's
 - Navy-Owned Vendor Pay Sites
- **3,000 DFAS and 6,000 Non-DFAS Users**
 - 9,000 Total User-IDs
- **CDA by Subsystem**
 - STARS FDR -- DFAS-CL/I&T
 - STARS-FL -- FMISO
 - STARS HQ -- FMISO
 - STARS OP -- FMISO
- **IPC: DECC - Mechanicsburg**



System Description - What Does STARS Do?



- **Tracking and Near Real Time Reporting**
 - **Financial Data**
 - **Budgetary Data**
 - **Managerial Data**
- **Enables Financial Statements**
 - **Auditable**
 - **Accurate**
 - **Timely**
- **Current Month/Month-Plus-One Processing**
 - **Flexible**
 - **Provides Audit Trail**
- **Electronic Data Interchange/Electronic Funds Transfer (EDI/EFT)**



System Description - What Does STARS Do?



(Continued)

- **On-line**
 - **Interactive Processing**
 - **Query Capability**
- **Modern Telecommunications**
 - **DISN**
 - **NIPRNET**
 - **Host on Demand/Secure Web Access(SWA/PKI)**
- **Tool Set to Enable Innovative Solutions**
- **Complete Historical Audit Trail of All Transactions**
- **Single Processing Site**
- **Satisfy Congressional Mandates (CFO, GPRA, etc.)**



System Description - What Does STARS Do?



(Continued)

- **Standardize Business Practices**
- **Enable DII/COE**
- **STARS Infrastructure Services:**
 - **New Expanding Technologies Improve Business Practices Providing:**
 - **On-line Library**
 - **On-line Security Management**
 - **Problem Management**
 - **Report Distribution**
 - **PKI Encryption Level III**
 - **Web Enabling Services**
 - **STARS Notes**



System Description - Functionality Added to STARS



- **Job Order Number**
- **Security Umbrella**
- **Division of Duties**
- **Commitment Accounting**
- **Subsistence in Kind (SIC) Accounting**
- **Foreign Currency Accounting and Payments**
- **Accounting for Foreign National Labor (Direct & Indirect)**
- **Budget and Exchange Rate for Foreign Currency**
- **Reserve Personnel Accounting (RPN)**
- **Material in Transit (MIT)**
- **Direct Cite Accounting**
- **Material Turned in for Stock (MTIS)**



System Description - Functionality Added to STARS



(Continued)

- **Budget OPTAR Reporting for Fleet (BOR)**
- **Military Personnel Accounting**
- **Military Construction Accounting for Navy/Air Force**
- **Accounts Receivable**
- **Accounts Payable**
- **Army Vendor Pay**
- **Standard Document Number - 15 Position**
- **Automated Prevalidation of Payments**
- **Money Value Only Accounting**
- **SPS (previously APADE) Interface of Contract Records**
- **WEB Enablement**
- **Graphical User Interface (GUI) Screens**



System Description - STARS Major Interfaces*

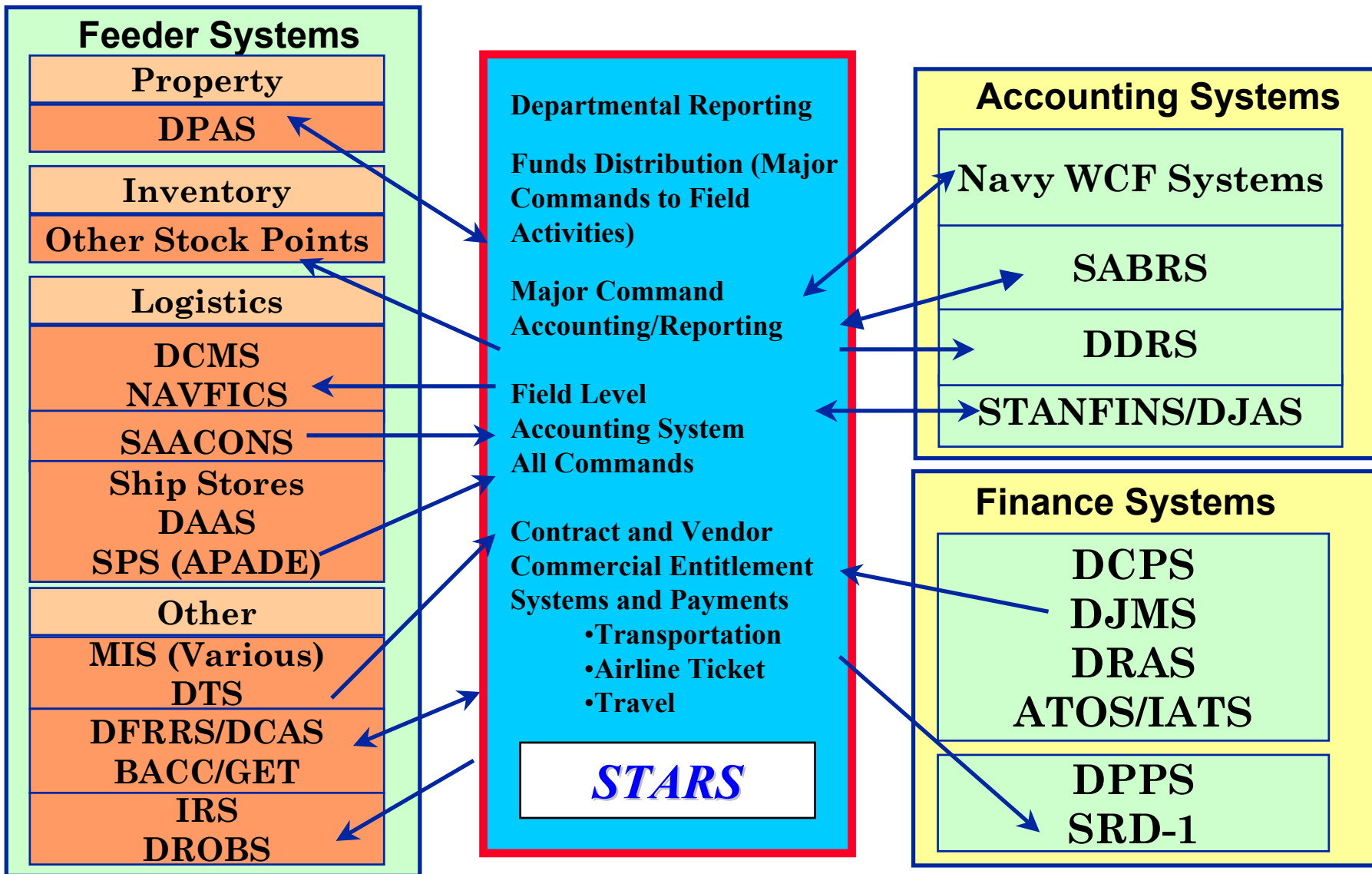


- CERPS
- CMET
- DAASO
- DCPS
- DIFMS
- DCAS
- DROBS
- FITS (IRS)
- FRS
- MISIL
- MOCAS
- Mongoose
- DTS
- NCIS
- DCD
- SPS
- MFCS
- UICP

***In STARS, there are Over 80 Interfaces**



STARS Model





STARS

Accomplishments/ROI



- **322% ROI in FY 98 (Cumulative Savings/Development Dollars)**
 - **STARS Economic Analysis (EA) 4/98**
- **330% ROI in FY 99**
- **851% ROI in FY 00**
- **Increased ROI Due to**
 - **Increased Efficiencies of STARS**
 - **Avoided Expense of Operating Outdated Legacy Systems**
- **Accomplishments**
 - **Customer Satisfaction**
 - **Consolidation**
 - **Budget Target**
 - **Workload Movement**



STARS Operating Environment



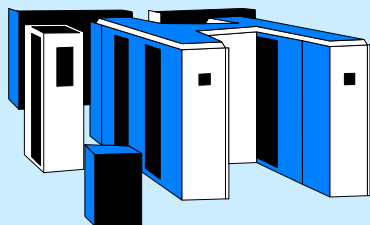
*** Communications ***

DFAS ELAN

DISA NIPERNET

DECC

IBM 9672 R66



900 MIPS

~2 Terabytes Storage

SOE to COE Compliance

*** System Software ***

FY01

OS/390 2.8 DB2 6.1

FY00

OS/390 2.5 DB2 6.1

FY98/99

OS/390 DB2 4.1

FY97

Enhanced ESA
& 9000 DB2

FY96

MVS-VM-
CICS/ESA

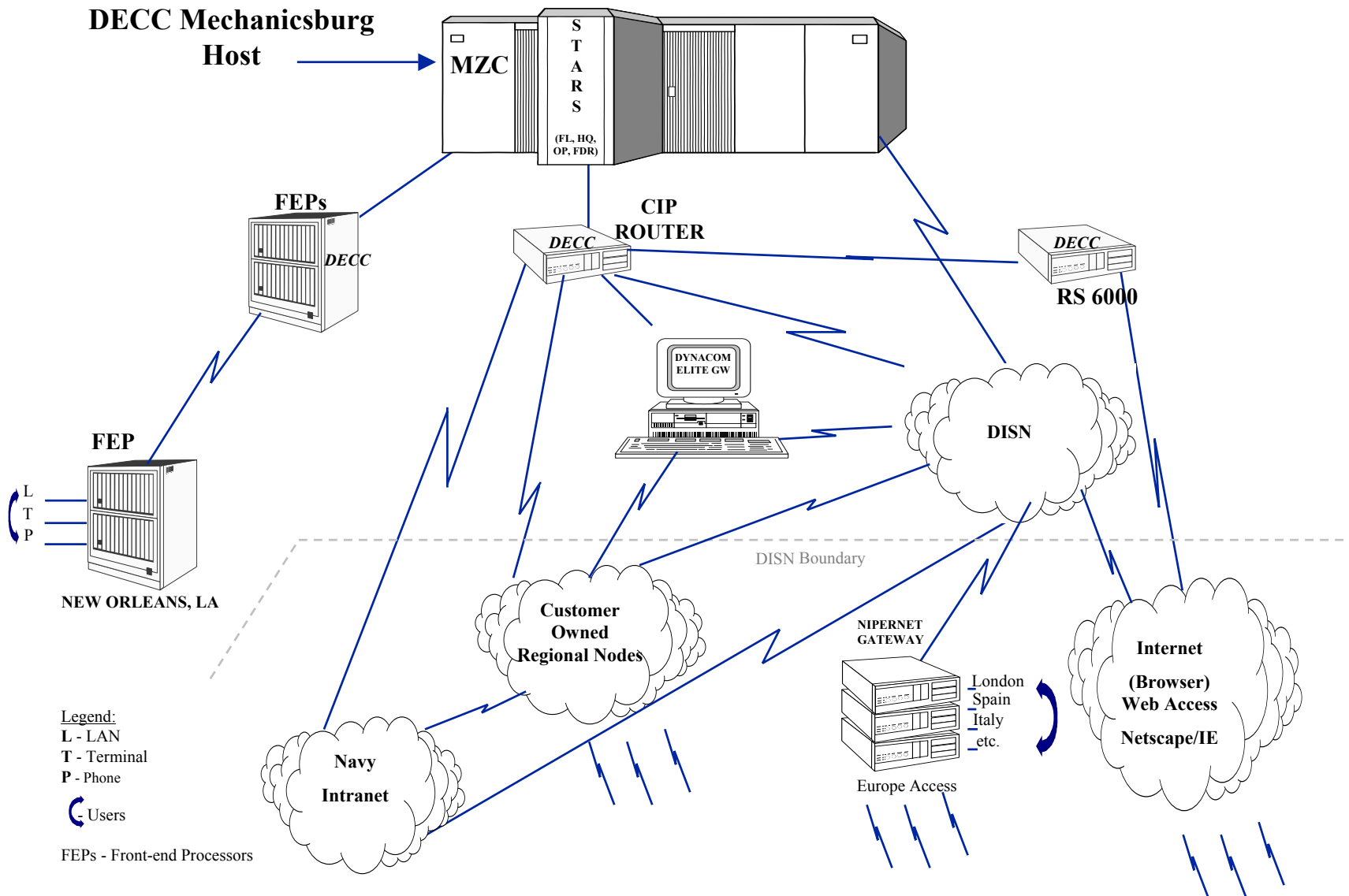
*** Security ***

RACF

NSA Certified C2

PKI

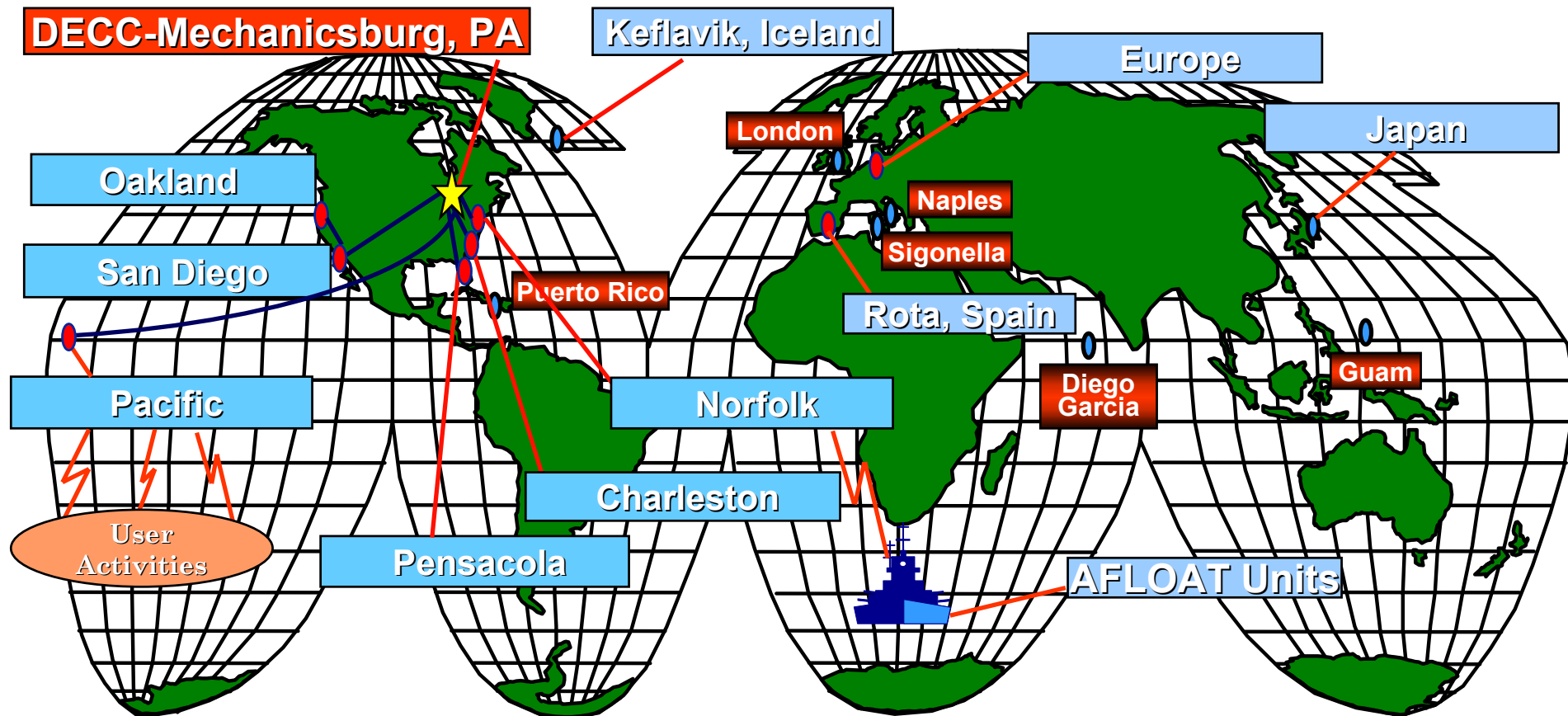
Application Security





STARS Deployment Today

100% of all Navy Activities Worldwide



9,000 User Id's

~21M CICS Transactions/Month

98% < .3 Seconds Response Time

1 DECC

9 DFAS Organizations

2,545 Activities

ON LINE



DoD STARS Profile (TY \$M)



1991

LEGACY SYSTEMS

27 ACCOUNTING SYSTEMS
120 VENDOR PAY SYSTEMS
610 CDA STAFF

46 COMPUTER OPS SITES

101 AAAs

2,900+ MISSION PERSONNEL

STARS

1 ACCOUNTING SYSTEM
1 VENDOR PAY SYSTEM
90 CDA STAFF

1 COMPUTER OPS SITE

6 Field, 2 AAA & 2 SATELLITEs

1,067 MISSION PERSONNEL

2001

**STARS
CONVERSION**

AVERAGE
NAVY ACTIVITIES
/ SYSTEM
1 : 98

AVERAGE
NAVY ACTIVITIES
/ SYSTEM
1 : 2,545

AVG NAVY COSTS:
\$161M+ / YR*

* System Operating Costs Only.

**DoD
SAVINGS:
\$86M+ /YR****

**Represents Investment, System
Operating, and Mission Personnel
Cost Savings for the Life Cycle
of the System.

AVG STARS COSTS:
\$20M / YR*

* System Operating Costs Only.



Recent Initiatives



- *Conversion to MCR/FDR and turn-off of CAM*
- *Conversion to USSGL and turn-off of UGLA*
- *INFOPAC Retention Periods*
- *QMF Dispatch Priority and Control Efforts*
- *Technical Environment Upgrades*
- *Secure Web Access (SWA)*
- *Movement of HQ Reporting to MCR*
- *Conversion of ONR Reporting to FDR/MCR*
- *Conversion of NAVFAC Reporting to FDR/MCR*
- *HQ Event Driven process*



Conversion to MCR/FDR and Turn-off CAM



- **15 Major Commands phased into STARS FDR/MCR between April 2000 and August 2001**
- **USSGL replaced UGLA-based reporting**
- **Relational database replaced non-relational CAM**
- **Shared FDR/MCR database eliminated separate interface to FDR**
- **Discontinued CAM and its 6 interfaces**
- **Reduced number of STARS CDAs to Two**



Conversion to MCR/FDR and Turn-off CAM



- **STARS-CAM stand down December 14, 2001**
- **Historical data available through May 31, 2002**
 - **Historical data access information available in STARS Note: 01- 339 @**
<https://mzd.mech.disa.mil/stars/notes>
- **About \$150,000 in annual operating costs saved through elimination of (now) duplicate CAM databases and CDA support**



Conversion to USSGL and Turn-off of UGLA



FY 2000 - FL tests USSGL transaction level updates

Oct. 2000 - FL converts DOD SGL to USSGL. Each transaction updates the UGLA, DOD SGL and USSGL Chart of Accounts

Aug. 2001 - HQ converts from UGLA to USSGL.
UGLA processing is turned off

Oct. 2001 - DFAS-CL hosted meeting to identify and correct problems caused by conversion to USSGL for both FL and HQ

May 2002 - FL will stop processing UGLA, DOD SGL and Allotment SGL transactions after month end close.



INFOPAC Retention Periods



- **System on-line retention periods for all STARS INFOPAC reports were established and applied to newly created reports in March 2001.**
- **Retention periods based on frequency of production:**

<u><i>Frequency of Production</i></u>	<u><i>Retention</i></u>
Daily	3 months
Weekly, Bi-Weekly, Semi-Weekly	12 months
Annually, Semi-Annually, Quarterly, Monthly & As Required	2 years
Year-end reports, Specific HQ Reports	10 years



INFOPAC Retention Periods



- Retention periods were applied to historical reports beginning in May 2001
- Reports with expired retention periods were purged
- The purge of expired reports resulted in a savings of approximately \$400,000
- In 2002, retention periods will again be assessed and revised in accordance with the DFAS 5015.2-M “Records Disposition Schedule N1-507-97-1, Schedules 6055-7801”



QMF Dispatch Priority & Control Efforts



- **Reduce QMF Query Dispatch Priority**
 - Reserves system resources for production online and production batch processing
 - Apparent only during periods of extreme system degradation, can extend execution clock time
 - Other alternatives are available
 - submit during off-peak times
 - use batch QMF submission
 - verify data in production reports
 - convert query to scheduled batch process



Technical Environment Upgrades



10/00 - Upgrade Operating System to OS/390 Version (2.8)

- Provides advanced building blocks for Open Systems Architecture

3/01 - Hardware upgrade to 987 MIPS

- Supported heavy mid-year and USSGL implementation

12/01 - Upgrade Operating System to OS/390 Version (2.10)

- Provides for more complete integration of Open Systems (Unisys, HP, etc.) and more robust implementation of Parallel Sysplex



Secure Web Access (SWA)



Current status:

- **DECC Mechanicsburg handling about 4,000 concurrent SWA sessions daily (peak around 2 PM Eastern)**
- **Largest user is STARS with about 70% of the sessions**
- **Other users include Navy Transportation Command, Air Force Portal, and DCPS**
- **Through the use of Virtual Private Networks, DECC Mechanicsburg provides SWA services to all five DECCs from Mechanicsburg**



Secure Web Access (SWA)



Upcoming changes:

- **Client-level authentication**
 - **Currently PKI-enabled server-workstation authentication only**
 - **Adding client (user) level authentication through DoD Common Access Card and digital certificate**
 - **Includes certificate validity check at each log-on**
 - **Eliminates log on ID and password to be forgotten/compromised**
 - **Pilot test under development at DFAS Pacific**



Secure Web Access (SWA)



- **Migration of SSL TELNET sessions to mainframe**
 - **Currently, sessions established and “redirected” on mid-tier sitting between client PC and OS 390 mainframe. Mid-tier “redirector” not sufficiently robust for proper network recovery actions**
 - **On a schedule beginning February 18th, users will establish SSL TELNET terminal and printer sessions directly with mainframe TELNET server**
 - **Last users switch on May 13th**
 - **Tested and proven significant reduction in dropped sessions**



Secure Web Access (SWA)



- Tested and proven much faster recovery from DISA network outages
- Eliminates the use of “special” firewall ports. Further “waivers” not required. Standard ports are used
- Web pages, in addition to TELNET sessions, also migrate in future from mid-tier to mainframe
- Upgrade to IBM Web Sphere Host On-Demand ver. 6.0
 - Currently scheduled for June 2002
 - Nondestructive updates to user preference files
 - Main benefit is addition of full user-controlled printing options



Movement of HQ Reporting to MCR



Conversion Strategy:

- **Integrated Product Team meetings**
- **Design reviews**
- **System Acceptance Testing**
- **Establishment of functional reconciled baseline**
- **STARS FDR/MCR Training**

Incremental implementation:

- **increment 1: ONR**
- **increment 2: DARPA**
- **increment 3: Procurement**
- **increment 4: O&M,N**



Movement of HQ Reporting to MCR



Benefits:

- **full synchronization of STARS USSGL chart of accounts upon completion of increment 4**
- **replace current STARS-HQ summary interface with detail interface to FDR/MCR**
- **eliminate duplicate official reports in STARS-HQ that are currently available in FDR/MCR**
- **use FDR/MCR to accomplish Major Command and Departmental reporting concurrently**
- **FDR/MCR table structure allows value changes without technical intervention**



Conversion of ONR Reporting to FDR/MCR



- **Eliminate ONR Reporting module in STARS-HQ and its associated CDA maintenance**
- **Transfer official Major Command reporting from STARS-HQ to FDR/MCR**
- **Shared FDR/MCR database will eliminate current separate ONR Reporting summary interface to FDR**
- **All ONR reports will be USSGL-based**
- **Vertical integration will improve data integrity through resolution of discrepancies between HQ and ONR Reporting module**
- **Improve customer satisfaction when ONR and Major Commands conduct business using the same data**



Conversion of NAVFAC Reporting to FDR/MCR



- **Replace summary interface to FDR with detail interface to FDR/MCR shared database**
- **Eliminate offline PC DD1002 program**
- **Provide transaction-based feed to FDR/MCR with project data associated to USSGL accounts**
- **Provide internal controls in FDR/MCR through validations, relational table structure, and audit trails**
- **Vertically integrated alignment of NAVFAC data within STARS using detail feed from FL**



HQ Event Driven Processing



Vertical Integration vs.. Event Driven

- **Vertical Integration** was a batch process where summarized trial balance data (and allotment NC2025 data) was uploaded from the field systems into HQ. FL processing occurred nightly and non-FL processing occurred monthly. In addition, there was a monthly reconciliation and error correction process.
- **Event Driven Processing** involves individual transaction details vice summary data. The transactions are sent to a holding table immediately upon processing by FL. Approximately every 15 minutes, the transaction are processed into HQ. The erroneous records are suspended immediately and are corrected by DFAS-CL Code AHA.



HQ Event Driven Processing



- **Conversion to Event Driven Processing occurred with 2001 August accounting month transactions**
- **Full implementation took place the last week of August 2001 in conjunction with the USSGL implementation**

Benefits:

- **Near real-time financial information in HQ**
- **Elimination of the monthly reconciliation**
- **Timely correction of suspended records.**



HQ Event Driven Processing



Statistics:

- **Approximately 1.9 million transactions per month sent from FL to HQ**
- **Approximate suspense rate is .5%**
- **Main reasons for suspended transactions**

Error Code: _____ **3R (29.4%) - LOA not found**

3Q (23.3%) - Document number not found

3S (20.8%) - Budget Project not found

3J (15.0%) - Chargeable UIC not found

3W (11.4%) - Valid Chargeable UIC, but does not match the HQ Receiving OB Holder UIC